



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
REGION 5  
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**MEMORANDUM**

**EPA Region 5 Records Ctr.**



**248069**

REPLY TO THE ATTENTION OF:

**SRT-4J**

**DATE :** February 26, 1997

**SUBJECT:** Review of the Draft QAPP for Natural Attenuation Evaluation and Split sample Collection at Blackwell Forest Preserve Landfill, IL

**FROM:** L. Finkelberg, Chemist  
Field Services Section (FSS)

**TO:** M. Bellot, RPM

I have reviewed the draft QAPP for Natural Attenuation and split sample collection at Blackwell Forest Preserve Landfill, IL. This subject QAPP was received by FSS on January 26, 1998 (Log-in # 2383).

Attached to this memorandum are FSS comments and recommendations that describe the deficiencies and provide guidance for their resolution. .

**A. Project Organization and Responsibilities (Section 2).**

1. The involvement FPD in this project is not clearly addressed in this Section. Please address the role of FPD in this Section and in Fig. 2 .
2. Section 2.3 needs to be revised for the following:
  - a. Due to Superfund Division reorganization the Technical Support Section (TSS) was renamed for Field Services Section (FSS). Please correct.

**B. Field Sampling Plan.**

1. During the description of project objectives the information is not clear who is going to collect samples to assess natural attenuation: Tetra Tech, FPD or both organizations?
2. Some clarification needs to be provided to coordinate the activities described in the last paragraph of Section 4.1 and the information in table B-4 about groundwater split sampling to perform a QC check of the analytical accuracy of the FPD laboratory. If Tetra Tech will obtain the split samples please specify the parameters that samples will be analyzed for .
3. Table B-6 needs to be revised for the following:
  - a. Holding time for Hg is 28 days;
  - b. Holding time for alkalinity is 14 days;
  - c. Holding time for Nitrate, Sulfate and Chloride is 28 days.

Comments for SASs:

1. All SASs should include the information about holding time requirements and preservation.
2. The SAS requests for analysis of alkalinity, chloride, methane, Nitrate and Sulfate in groundwater are identical with the SAS requests for those parameters in leachate. Please combine those requests.

SAS for Alkalinity:

1. We recommend to change the frequency of laboratory duplicate from one per 20 investigative samples for one duplicate per group of 10 investigative samples.
2. Laboratory blank sample should be analyzed with a frequency of one per group of 10 samples.
3. The SAS needs to address the project required Detection Limit and applicable range.
4. SAS needs to provide special technical instructions based on low level or high level of alkalinity.

SAS for Chloride and Nitrate and Sulfate.

1. Please address the applicable range and project specific detection limit.
2. Table 1 of SAS needs to specify how many levels of standards (including a zero concentration) will be used for calibration curve.
3. 4We recommend to verify calibration after every ten samples.
4. The frequency of method blank and laboratory duplicate analysis should be

revised for one per group of ten investigative samples (Table 2).

5. Table 1 needs to be revised : the initial calibration is acceptable when the correlation coefficient (r) is **>0.995**.

6. This comment for Nitrate and Sulfate only: please follow the CRL recommendation and add one more QC audit (matrix spike) for samples analyzed for Nitrate and Sulfate.

SAS for Methane, Ethane and Ethene.

The SAS needs to provide more technical instruction because this method is outside established SAS protocol requirements.